

WHAT IS CLAIMED IS:

1. A method for providing connectivity to a second local area network for a user device configured for a first local area network, the method comprising:
intercepting packets transmitted by the user device intended for a device on the first local area network to automatically determine network settings of the user device;

modifying incompatible packets transmitted by the user device to make the packets compatible with the second local area network based on the network settings of the user device and the second local area network.

2. The method of claim 1 wherein the step of intercepting packets comprises receiving and processing packets which would otherwise be dropped by devices on the second local area network due to incompatible network settings.

3. The method of claim 1 further comprising:
automatically determining the network settings of the second local area network based on packets transmitted over the second local area network.

4. The method of claim 1 further comprising:
automatically determining the network settings of the second local area network by transmitting a Dynamic Host Control Protocol (DHCP) packet over the second local area network.

5. The method of claim 1 wherein the step of intercepting packets comprises:
intercepting an Address Resolution Protocol (ARP) message transmitted by the user device having a network address of a device on the first local area network;
and
replying to the ARP message with a Media Access Control (MAC) address of a device on the second local area network.

1 7. The method of claim 1 wherein the step of modifying packets
2 comprises replacing a source address with a router address where the router address is
3 automatically determined based on the network settings of the second local area
4 network.

1 9. The method of claim 7 wherein the step of modifying packets
2 comprises replacing a source address within contents of the packet.

3 intercepting a Dynamic Host Control Protocol (DHCP) packet
4 transmitted by the user device;

7 replying to the DHCP packet to provide configuration settings based on
8 network settings of the second local area network.

4 intercepting data transmitted by the user device containing the
5 incompatible private IP address;

8 transmitting the modified data on the network.

7 modifying the packets transmitted by the user device based on an
8 available IP address; and
9 transmitting modified packets on the network to provide network access
10 to the user device.

11 19. A method for providing connectivity to a foreign network for a user
12 device, the method comprising:
13 automatically determining network settings of the network based on
14 addresses contained in messages transmitted over the network;
15 intercepting messages transmitted over the network without regard to
16 message destination addresses; and
17 modifying incorrectly configured messages transmitted by a user device
18 based on the network settings of the network.

19 20. The method of claim 19 wherein the user device is configured to
20 communicate over a home network having network settings incompatible with the
21 network, the method further comprising:
22 automatically determining network settings of the user device by
23 intercepting an Address Resolution Protocol (ARP) message transmitted by the user
24 device having a destination address of a device on the home network and replying to
25 the ARP message by associating a Media Access Control (MAC) address of a device
26 on the network with the destination address of the device on the home network.